Response to MDNR May 4, 2012 Comments on Proposed CR 595

MDEQ File No. 11-52-0075-P

May 30, 2012

Comments on the proposed CR 595 project proposed by the Marquette County Road Commission (MCRC) were submitted by the Michigan Department of Natural Resources (MDNR) to the Michigan Department of Environmental Quality (MDEQ) in a letter dated May 4, 2012. This document provides the response of MCRC to the MDNR comments, some of which are based upon discussions held at a meeting at the MDNR office in Marquette on May 25, 2012 with MCRC.

The main headings from the MDNR comments are provided in the following document followed by MDNR's recommendation(s) and the response by MCRC.

State Land Affected

No recommendations at this time.

Snowmobile Trail Impacts

MDNR Recommendation:

- Relocation costs of snowmobile trails must be mitigated. The snowmobile program should not support costs for a reroute. An attempt to acquire long-term permits from non-corporate landowners must be made.

MCRC Response:

Kennecott Eagle Minerals Company (KEMC) is fully funding the relocation of Trail 5 if CR 595 is permitted. The Moose Country Snowmobile Club (the entity that obtains the easements for the trail from all landowners) requires long-term agreements with landowners for snowmobile trails.

In response to questions at the meeting with MDNR on May 25, 2012: the Trail 5 relocation plans are in the application for permit binder at tab 17 and show the proposed wetland and stream crossings. The environmental consequences of the relocation of a portion of Trail 5 are provided in the AA/PA on page 197-199. In summary, the total length of the Trail 5 relocation is 15.9 miles and is all on existing trails except for a 1,465-foot section at the Mulligan Creek crossing and a 1,600-foot section where the trail crosses the Yellow Dog River. Thus, the total relocation of 0.6-mile that is not on existing trails comprises only four percent of the total Trail 5 relocation. The wetland impact for the bridge approaches is 0.06 acre; an additional wetland impact for clearing only is 0.29 acre and is located on the two new trail segments at the Mulligan Creek and Yellow Dog River.

MDNR Recommendation:

- Project activities in wetlands are regulated and require permitting and inspections. Wetland mitigation measures are covered in the permit.

MCRC Response:

MCRC has requested assistance from MDNR in identifying critical lands that may be acquired as a component of the overall project mitigation, and will otherwise work with MDNR and MDEQ on the wetland mitigation package that includes impacts from the Snowmobile Trail.

Cultural

MDNR Recommendation:

- A more in-depth archaeological survey should be conducted on private and corporate lands.

MCRC Response:

An archaeological survey has been conducted on the entire route of CR 595 by URS. That survey included the Kipple Creek reroute around the west side of Brocky Lake; the results of the survey have been provided to the State Historic Preservation Office (SHPO). There were no sites of historic significance found in the surveys. Due to the fact that no federal funds are involved in the CR 595 project, conducting an archaeological survey was not required by SHPO.

Wildlife-Vehicle Collisions

MDNR Recommendations:

- Post and enforce daytime speed limits not to exceed 45 mph within areas where moose vehicle strikes are a concern. Even slower nighttime speed limits should be considered. Areas of concern should be identified in coordination with DNR staff and will be based on areas with concentrated wildlife movement, which may be determined both by existing survey data and future monitoring results.

MCRC Response:

MCRC is not allowed, by State law, to post speed limits less than the 55 mph speed limit unless a speed study is conducted according to Michigan Department of Transportation (MDOT) standards. However, yellow moose crossing signs (or other wording) with an advisory speed limit can be erected in areas deemed by MDNR biologists to raise awareness by vehicle operators. MCRC will coordinate with MDNR to determine the areas for postings for moose crossing or other wildlife species. It is understood by MCRC and MDNR that the need for such postings may not be known until sometime after CR 595 is constructed and open to traffic.

MDNR Recommendation:

- Monitor and report vehicle collisions with wildlife to DNR Wildlife Division. This information will be used to determine if additional mitigation solutions are needed.

MCRC Response:

A draft Wildlife-Vehicle Mortality Monitoring Plan will be prepared by MCRC and is proposed to be conducted for a period of three years after CR 595 is open to traffic. After three years the wildlife mortality issue will be evaluated and any additional mitigation measures will be determined. The plan is proposed to consist of the following elements:

a. A person(s) will be assigned the responsibility to drive the entire CR 595 route on a daily basis and record the species of wildlife killed by vehicles. Animals will be picked up or removed from the roadway to avoid duplication of counting and to keep scavengers off the roadway, including bald eagles in winter. If moose, coyotes (to confirm not a young wolf), wolves, or black bear are killed on the roadway, MDNR will be notified immediately for instructions/assistance.

b. The person(s) will be required to take photographs of unidentified species (e.g. turtles, snakes) for identification of species by others.

c. The location of wildlife mortality for certain species (to be determined by MDNR) will be determined using GPS and the coordinates recorded on the reporting sheet.

d. A report will be prepared and submitted quarterly to MDEQ and MDNR that lists the number, species, and location of wildlife killed on the roadway.

e. An annual report will be prepared that summarizes the wildlife mortality of the previous year and also provides vehicle accident reports as provided by the Marquette County Sheriff's Department or Michigan State Police. Both agencies will be notified of the need to provide this information for CR 595 reported vehicle accidents, whether they involve wildlife or not.

f. Signage will be erected requesting motorists to report the location of collisions with moose, wolves, black bear, or white-tailed deer that are hit by a vehicle but not immediately killed. MDNR biologists or Conservation Officers may then investigate to determine if the animal died at some location away from the road. MCRC will coordinate the wording and location of signs with MDNR.

g. The person(s) assigned the responsibility of driving CR 595 each day to record wildlife mortality will also be required to pick up debris on the roadway that may be a safety hazard to vehicles (e.g. tire fragments, etc.).

h. The person(s) conducting the daily survey will be required to use a vehicle with emergency lights (strobe) and wear safety clothing to maintain safety in conducting this task. The survey should not be conducted during inclement weather that creates visibility issues for drivers or hazardous road conditions (e.g. snow or ice cover).

MDNR Recommendation:

- Limit and minimize large grassy roadsides that may be attractive to wildlife as a food source.

MCRC Response:

Clearing adjacent to the proposed road will be limited to only the area needed to establish the horizontal and vertical alignments of the road which will involve cuts in soil and/or bedrock in some locations. Soil cuts will be stabilized with native grasses; bedrock cuts will be left bare. Rock riprap on slopes or other areas may be implemented if MDNR indicates that herbaceous cover would be a potential problem for wildlife encounters. Borrow areas or other areas of grading adjacent to the road will be minimized in order to reduce grassy roadsides to the extent possible.

MDNR Recommendation:

- Minimize any new road construction by upgrading and using existing infrastructure.

MCRC response:

Significant effort has been expended in designing the proposed CR 595 to locate it on existing county roads, private roads, and private trails to the extent practicable in order to minimize impacts. MCRC is committed to working with MDNR and MDEQ to further minimize impacts as may be identified during upcoming on-site reviews

Traffic Noise Impacts on Wildlife and Recreationists

MDNR Recommendation:

- Evaluate new types of pavements that might reduce freeway noise at the source. Such as rubber asphalt open-graded friction course, polymer modified asphalt open-graded friction course, or concrete with new types of surface texturing.

MCRC response:

MCRC has investigated the durability, effectiveness, and cost of the pavement types suggested by MDNR for the purpose of traffic noise reduction. In researching the noise-reducing pavements, a Memorandum on the Federal Highway Administration's website was located that describes this issue well. The website is:

http://www.fhwa.dot.gov/environment/noise/regulations_and_guidance/qppmem.cfm

The Memorandum provides clear policies on the use of open-graded asphalt pavements as a noise reduction measure. In addition, the use of open-graded mix designs is not recommended in areas where there is concern with freeze/thaw cycles, such as Marquette County.

MCRC also sent a request on the Michigan Association of County Road Commissions website list server to seek information on use of these alternative paving products in Michigan. No response was received from any road commission regarding this subject.

The cost of the alternative paving products was investigated and it was determined that the cost is about $15 to $20 per ton more for the alternative paving products, which is about $30,000 more per mile of roadway. This would add about $600,000 to the cost of paving CR 595.

It is MCRC experience that smooth asphalt road surface is the quietest roadway compared to concrete or chip seal surfaces and is the best road surface option for CR 595.

MDNR Recommendation:

- Minimize any new road construction by upgrading and using existing infrastructure.

MCRC Response:

Response provided to a previous recommendation.

Increased Human Access – Impacts on Wildlife

MDNR Recommendation:

- Minimize any new road construction by upgrading and using existing infrastructure.

MCRC Response:

Response provided to a previous recommendation.

MDNR Recommendation:

- Limit secondary road construction.

MCRC response:

MCRC will consider implementing measures to limit connection of secondary roads to CR 595 in critical habitat areas as identified by MDNR. Measures may include placing Conservation Easements, land purchase, deed restrictions, etc. with the cooperation of adjacent landowners. MCRC is committed to coordination with the major landowners along CR 595 (e.g. Plum Creek, Longyear, GMO, and Kennecott Eagle Minerals Company) to limit secondary road construction with connections to CR 595.

Due to the large number of existing roads and trails in the CR 595 corridor, the construction of additional roads is not anticipated. The exception may be construction of trails for logging access, which would likely be done regardless of CR 595.

Barrier to Wildlife Movement

MDNR Recommendation:

- Steps be taken in consultation with the DNR to minimize/mitigate the impacts of roads on wildlife movements and dispersion.

MCRC response:

MCRC is willing to consider measures to minimize/mitigate the impacts of roads on wildlife movements and dispersion, as input is received from MDNR to identify the areas and types of mitigation needed to address the concern. Wildlife underpasses and right-of-way fencing are two measures that could be implemented if MDNR identifies specific areas of concern. It is possible that the Wildlife-Vehicle Mortality Monitoring Plan would identify areas where additional mitigation/avoidance measures could be implemented. MCRC is committed to implement measures to mitigate for effects on wildlife movement that may be identified after traffic is open on CR 595. Implementing measures (such as installation of a wildlife underpass) after construction of CR 595 would require lane closures on CR 595; therefore such measures would best be implemented during the construction of CR 595.

Fragmentation of Wildlife Habitat

MDNR Recommendations:

- Minimize any new road construction by upgrading and using existing infrastructure.

- Limit and minimize large grassy roadsides.

MCRC response:

Responses have been provided to a previous recommendation.

Threatened and Endangered Species

MDNR Recommendation:

- Consult previous surveys (internal and external) and be observant and diligent in all phases of construction.

MCRC response:

MCRC will be submitting a permit application to the MDNR in acknowledgement of the presence of narrow-leaved gentian (State-listed as threatened) on the proposed CR 595 corridor. A survey to identify these threatened plants within the CR 595 construction corridor will be conducted in July/August 2012, and the threatened plants moved to suitable habitat after a permit is issued by MDNR authorizing such activities. Follow-up surveys will be conducted to monitor the success of the relocation to assist in future management of this species.

Botanical, bird, and wildlife surveys have been conducted on the proposed road corridor over a period of several years. No other threatened or endangered species, other than narrow-leaved gentian, have been identified in those surveys; however the project environmental consultant will continue to search for threatened species, including those listed in the MDNR comments throughout the project. For example, habitat for Farwell's water milfoil will be investigated. If occurrences of this species are located, MDNR and MDEQ will be notified and measures will be taken to avoid any impact to the plants or obtain the appropriate MDNR permit. Similar measures will be taken if any other threatened or endangered species are encountered during the course of the project.

Invasive Species Spread

MDNR Recommendation:

- All roadside planting should be done with Michigan native grasses.

MCRC response:

Planting of all exposed soils will be seeded with Michigan native grasses and forbs, and will be part of the construction specifications. Straw mulch will be required to be certified weed-free and verification required as part of the construction specifications. Importation of topsoil from other locations will not be allowed unless the topsoil is certified weed free.

MDNR Recommendation:

- Survey for and remove invasive/exotic noxious plants.

MCRC response:

MCRC has formulated the following draft plan for the monitoring of the establishment of invasive species on the CR 595 project:

1. As a preventative measure all seed mixes used on the project will be comprised of native species indigenous to the area. Exposed soils will be seeded and mulched with certified weed-free straw as soon as possible after construction is completed in each

area. Stabilization with native plants will help to prevent establishment of invasive species.

2. In August of each year for a period of three years following the permanent seeding being installed, a survey will be conducted of all areas disturbed during the construction of CR 595 for the purpose of identifying any invasive plant species that may be present. The location of any occurrences will be recorded with a GPS unit and transferred onto the project plans for follow-up review.

3. Any invasive species identified will be removed or treated with herbicide, depending on the best technique for eradicating the plant species involved. Monitoring will continue after the last treatment on an area where invasive species have been removed for a period of three years.

4. A report will be prepared each year that summarizes the findings of the invasive plant survey and any treatment that was conducted.

Road Stream Crossings

MDNR Recommendation:

- Culvert lengths should be reduced as much as possible to reduce stream habitat fragmentation.

MCRC response:

Proposed stream crossings have been reviewed and revisions made in response to MDNR and MDEQ comments. The total length of proposed box culverts, width of Conspan® bridges, and width of box beam bridges for the 23 stream crossings on CR 595 (includes East Branch Salmon Trout River) has been reduced from that proposed in the application for permit from 1,735 feet to 1,219 feet, a reduction of 516 feet as a result of plan revisions. This was accomplished by the use of higher headwalls and wingwalls on the stream crossings and by the replacement of some box culverts with bridges.

The existing stream crossing structures on the CR 595 route total approximately 515 feet in length. The total of 1,219 feet for the revised stream crossing lengths results in an increase of stream within structures of 704 feet over the length in existing structures (1,219 feet – 515 feet = 704 feet). Table 1 provides the details of the revised stream crossings.

A field review of all proposed stream crossings by MCRC consultants is being planned with MDEQ Water Resources Division and MDNR Fisheries and Wildlife Division biologists to verify the revised plans and incorporate input from MDEQ and MDNR.

Table 1. Stream Crossing Structure Revisions

Bridge/Culvert Identification Number	Regulated Stream	Station	Page #	Proposed Structure AFP Plans	Revised Structure May 2012	Length of Existing Structure to be Removed
B1	Middle Branch Escanaba	122+75	1	60' Span Bridge	(same)	None
B2	Second River	261+00	6	58' Span Bridge	(same)	53’
E6	Trembath Lake Outlet	311+91	8	12' Span x 5' Rise x 73' Length Box	(same)	41’
E99	Unnamed Stream	426+47	12	6' Span x 4' Rise x 108' Length Box	6' Span x 4' Rise x 80' Length Box	None
E102	Kipple Creek	453+07	12	12' Span x 6' Rise x 66' Length Box	(same)	None
E105	Unnamed Tributary to Kipple Creek	491+08	14	6' Span x 4' Rise x 112' Length Box	6' Span x 4' Rise x 80' Length Box	None
(E109)	Unnamed Tributary to Kipple Creek	517+10	15	6' Span x 4' Rise x 101' Length Box	30' Span Bridge	None
M1	Unnamed Tributary to Dishno Creek	1130+96	18	6' Span x 4' Rise x 47' Length Box	(same)	25’
(D28)	Unnamed Tributary to Voelkers Creek	1219+67	21	6' Span x 4' Rise x 97' Length Box	30' Span Bridge	None
D29	Voelkers Creek	1225+61	21	10' Span x 5' Rise x 61' Length Box	(same)	31’
B3	Dead River	1352+75	26	24' Span x 10' Rise Conspan x 68' Length	(same)	24’ Timber Bridge
D44	Wildcat Canyon Creek	1404+15	27	7’ Span x 5’ Rise x 67’ Length Box	(same)	34’

Table 1. Stream Crossing Structure Revisions (con't.)

Bridge/Culvert Identification Number	Regulated Stream	Station	Page #	Proposed Structure AFP Plans	Revised Structure May 2012	Length of Existing Structure to be Removed
D46	Wildcat Canyon Creek	1418+67	28	6' Span x 6' Rise x 87' Length Box	6' Span x 6' Rise x 80' Length Box	24'
D47	Unnamed Trib. to Wildcat Canyon Creek	1423+13	28	6' Span x 4' Rise x 79' Length Box	(same)	25'
D48	Wildcat Canyon Creek	1430+13	28	8' Span x 6' Rise x 107' Length Box	8' Span x 6' Rise x 80' Length Box	25'
D57	Unnamed Tributary to Mulligan Creek	1506+70	31	10' Span x 6' Rise x 77' Length Box	(same)	31'
D59	Unnamed Tributary to Mulligan Creek	1513+27	31	6' Span x 4' Rise x 70' Length Box	(same)	31'
D60	Unnamed Tributary to Mulligan Creek	1522+93	31	5' Span x 3' Rise x 113' Length Box	5' Span x 3' Rise x 80' Length Box	25'
D61	Unnamed Tributary to Mulligan Creek	1527+21	31	4' Span x 3' Rise x 98' Length Box	4' Span x 3' Rise x 80' Length Box	Size unknown (buried)
D64	Unnamed Tributary to Mulligan Creek	1556+82	32	4' Span x 3' Rise x 77' Length Box	(same)	None
B4	Mulligan Creek	1565+25	33	36' Span x 11' Rise Conspan x 54' Length	(same)	12' Timber Bridge
B5	Yellow Dog River	1715+00	38	55' Span Bridge	(same)	14' Steel Beam Bridge
B6	East Branch Salmon Trout River	29+74	SM6	65' Span Bridge	(same)	40' (3)
Totals				**1,735'**	**1,219'**	**515'**

Road Salt Impacts

MDNR Recommendation:

- Road salt impacts on streams are best mitigated by reducing road salt loads.

MCRC response:

MCRC only uses road salt as needed to maintain safe roadways; mostly at intersections, on steep hills and curves. Salt is mostly used to mix with sand to prevent the sand from clumping during freezing conditions. Excess use of road salt on CR 595 should not be an issue.

MCRC has also had the stream crossing locations designed to direct road runoff away from streams, as shown on the project plan and profile drawings. The plans will be reviewed at each stream crossing during the field review to verify the outlet locations, etc.

MDNR Recommendation:

- Examine calcium magnesium acetate or potassium acetate as an alternative to road salt in deicing operations.

MCRC response:

MCRC is investigating the use of the alternative deicing products listed above by MDNR and will report the findings to MDEQ and MDNR when available. If the cost of these products is reasonable and these products are available, MCRC will consider using an alternative product.

Previous DNR Fishery Survey Data and DEQ Survey Data

MDNR Recommendation:

- Include surveys as listed in the 5/4/12 MDNR letter in the application for permit.

MCRC response:

If MDNR provides copies of the surveys they will be included in the submittals to MDEQ for the application for permit.